

19442210400(210400)

SEQUENCE LISTING

<110> Genzyme Corporation
Nicolette, Charles, A.

<120> THERAPEUTIC COMPOUNDS FOR OVARIAN CANCER

<130> 194422104.00

<140> Not Yet Assigned

<141> - -

<150> US 60/226,243

<151> 2000-08-17

<160> 12

<170> FastSEQ for windows Version 4.0

<210> 1

<211> 3801

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1)...(3801)

<400> 1

```

atg aaa gtg acc gtg tgc ttc gga cgg acc cgg gtg gtc gtg ccg tgc 48
Met Lys Val Thr Val Cys Phe Gly Arg Thr Arg Val Val Pro Cys
1 5 10 15

ggg gac ggc cac atg aaa gtt ttc agc ctc atc cag cag gcg gtg acc 96
Gly Asp Gly His Met Lys Val Phe Ser 25 Leu Ile Gln Gln Ala Val Thr
20 25 30

dgc tac cgg aag gcc atc gcc aag gat cca aac tac tgg ata cag gtg 144
Arg Tyr Arg Lys Ala Ile Ala Lys Asp Pro Asn Tyr Trp Ile Gln Val
35 40 45

cat cgc ttg gaa cat gga gat gga gga ata cta gac ctt gat gac att 192
His Arg Leu Glu His Gly Asp 55 Gly Gly Ile Leu Asp 60 Leu Asp Asp Ile
50 55 60

ctt tgt gat gta gca gac gat aaa gac aga ctg gta gca gtg ttt gat 240
Leu Cys Asp Val Ala Asp 70 Lys Asp Arg Arg Val Ala Val Phe Asp 80
65 70 75 80

gag cag gat cca cat cac gga ggt gat ggc acc agt gcc agt tcc acg 288
Glu Gln Asp Pro His 85 His Gly Gly Asp Gly Thr Ser Ala Ser 95 Thr
90 95 100

ggt acc cag agc cca gag ata ttt ggt agt gag ctt gcc acc aac aat 336
Gly Thr Gln Ser Pro Glu Ile Phe 105 Ser Ser Glu Leu Gly 110 Asn Asn
100 105 110 115

gtc tca gcc ttt cag cct tac caa gca aca agt gaa att gag gtc aca 384
Val Ser Ala Phe Gln Pro Tyr Gln Ala Thr Ser Glu Ile Glu Val Thr
115 120 125

```

19442210400(210400)																
cct Pro	tca Ser 130	gtc Val	ctt Leu	cga Arg	gca Ala	aat Asn 135	atg Met	cct Pro	ctt Leu	cat His	gtt Val 140	cga Arg	cgc Arg	agt Ser	agt Ser	432
gac Asp 145	cca Pro	gct Ala	cta Leu	att Ile	ggc Gly 150	ctc Leu	tcc Ser	act Thr	tct Ser	gtc Val 155	agt Ser	gat Asp	agt Ser	aat Asn	ttt Phe 160	480
tcc Ser	tct Ser	gaa Glu	gag Glu	cct Pro 165	tca Ser	agg Arg	aaa Lys	aat Asn	ccc Pro 170	aca Thr	cgc Arg	tgg Trp	tca Ser	aca Thr 175	aca Thr	528
gct Ala	ggc Gly	ttc Phe	ctc Leu 180	aag Lys	cag Gln	aac Asn	act Thr	gct Ala 185	ggg Gly	agt Ser	cct Pro	aaa Lys	acc Thr 190	tgc Cys	gac Asp	576
agg Arg	aag Lys	gat Asp 195	gag Glu	gat Asp	ggg Gly	aca Thr	gaa Glu 200	gag Glu	gat Asp	aac Asn	agt Ser	cgt Arg 205	gtt Val	gaa Glu	cct Pro	624
gtt Val	gga Gly 210	cat His	gct Ala	gac Asp	acg Thr	ggt Gly 215	ttg Leu	gag Glu	cat His	ata Ile	ccc Pro 220	aac Asn	ttt Phe	tct Ser	ctg Leu	672
gat Asp 225	gat Asp	atg Met	gta Val	aag Lys	ctc Leu 230	gta Val	gaa Glu	gtc Val	ccc Pro	aac Asn 235	gat Asp	gga Gly	ggg Gly	cct Pro	ctg Leu 240	720
gga Gly	atc Ile	cat His	gta Val	gtg Val 245	cct Pro	ttc Phe	agt Ser	gct Ala	cga Arg 250	ggc Gly	ggc Gly	aga Arg	acc Thr 255	ctg Leu 255	ggg Gly	768
tta Leu	tta Leu	gta Val	aaa Lys 260	cga Arg	ttg Leu	gag Glu	aaa Lys	ggt Gly 265	ggt Gly	aaa Lys	gct Ala	gaa Glu	cat His 270	gaa Glu	aat Asn	816
gtt Leu	ttt Phe	cgt Arg 275	gag Glu	aat Asn	gat Asp	tgc Cys	att Ile 280	gtc Val	agg Arg	att Ile	aat Asn	gat Asp 285	ggc Gly	gac Asp	ctt Leu	864
gga Arg	aat Asn 290	aga Arg	aga Arg	ttt Phe	gaa Glu	caa Gln 295	gca Ala	caa Gln	cat His	atg Met	ttt Phe 300	cgc Arg	caa Gln	gcc Ala	atg Met	912
cgt Arg 305	aca Thr	ccc Pro	atc Ile	att Ile	tggt Trp 310	ttc Phe	cat His	gtg Val	gtt Val	cct Pro 315	gca Ala	gca Ala	aat Asn	aaa Lys	gag Glu 320	960
cag Gln	tat Tyr	gaa Glu	caa Gln	cta Leu 325	tcc Ser	caa Gln	agt Ser	gag Glu	aag Lys 330	aac Asn	aat Asn	tac Tyr	tat Tyr	tca Ser 335	agc Ser	1008
cgt Arg	ttt Phe	agc Ser	cct Pro 340	gac Asp	agc Ser	cag Gln	tat Tyr	att Ile 345	gac Asp	aac Asn	agg Arg	agt Ser	gtg Val 350	aac Asn	agt Ser	1056
gca Ala	ggg Gly	ctt Leu 355	cac His	acg Thr	gtg Val	cag Gln	aga Arg 360	gca Ala	ccc Pro	cga Arg	ctg Leu	aac Asn 365	cac His	ccg Pro	cct Pro	1104
gag Glu	cag Gln 370	ata Ile	gac Asp	tct Ser	cac His	tca Ser 375	aga Arg	cta Leu	cct Pro	cat His	agc Ser 380	gca Ala	cac His	ccc Pro	tcg Ser	1152

19442210400(210400)

gga Gly 385	aaa Lys	cca Pro	cca Pro	tcc Ser	gct Ala 390	cca Pro	gcc Ala	tcg Ser	gca Ala	cct Pro 395	cag Gln	aat Asn	gta Val	ttt Phe	agt Ser 400	1200
acg Thr	act Thr	gta Val	agc Ser	agt Ser 405	ggg Gly	tat Tyr	aac Asn	acc Thr	aaa Lys 410	aaa Lys	ata Ile	ggc Gly	aag Lys	agg Arg 415	ctt Leu	1248
aat Asn	atc Ile	cag Gln	ctt Leu 420	aag Lys	aaa Lys	ggg Gly	aca Thr	gaa Glu 425	ggg Gly	ttg Leu	gga Gly	ttc Phe	agc Ser 430	atc Ile	act Thr	1296
tcc Ser	aga Arg	gat Val 435	gta Val	aca Thr	ata Ile	ggg Gly 440	ggc Gly	tca Ser	gct Ala	cca Pro	atc Ile	tat Tyr 445	gtg Val	aaa Lys	aac Asn	1344
att Ile	ctc Leu 450	ccc Pro	cgg Arg	ggg Gly	ggc Ala	gcc Ala 455	att Ile	cag Gln	gat Asp	ggc Gly	cga Arg 460	ctt Leu	aag Lys	gca Ala	gga Gly	1392
gac Asp 465	aga Arg	ctt Leu	ata Ile	gag Glu	gta Val 470	aat Asn	gga Gly	gta Val	gat Asp	tta Leu 475	gtg Val	ggc Gly	aaa Lys	tcc Ser	caa Gln 480	1440
gag Glu	gaa Val	gtt Val	tcg Ser 485	ctg Leu	ttg Leu	aga Arg	agc Ser	acc Thr 490	aag Lys	atg Met	gaa Glu	gga Gly	act Arg 495	gtg Val		1488
agc Ser	ctt Leu	ctg Leu	gtc Val 500	ttt Phe	cgc Arg	cag Gln	gaa Glu	gac Asp 505	gcc Ala	ttc Phe	cac His	cca Pro	agg Ser 510	gaa Glu	ctg Leu	1536
aaa Lys	gca Ala	gaa Glu 515	gat Asp	gag Glu	gat Asp	att Ile	gtt Val 520	ctt Leu	aca Thr	cct Pro	gat Asp	ggc Gly 525	acc Thr	agg Arg	gaa Glu	1584
ttt Phe	ctg Leu 530	aca Thr	ttt Phe	gaa Glu	gtc Val	cca Pro 535	ctt Leu	aat Asn	gat Asp	tca Ser	gga Gly 540	tct Ser	gca Ala	ggc Gly	ctt Leu	1632
ggg Gly 545	gtc Val	agt Ser	gtc Val	aaa Lys	ggg Gly 550	aac Asn	cgg Arg	tca Ser	aaa Lys	gag Glu 555	aac Asn	cac His	gca Ala	gat Asp	ttg Leu 560	1680
gga Gly	atc Ile	ttt Phe	gtc Val	aag Ser 565	tcc Ser	att Ile	att Ile	aat Asn	gga Gly 570	gga Gly	gca Ala	gca Ala	tct Ser	aaa Lys 575	gat Asp	1728
gga Gly	agg Arg	ctt Leu	cgg Arg 580	gtg Val	aat Asn	gat Asp	caa Gln	ctg Leu 585	ata Ile	gca Ala	gta Val	aat Asn	gga Gly 590	gaa Glu	tcc Ser	1776
ctg Leu	ttg Leu	ggc Gly 595	aag Lys	aca Thr	aac Asn	caa Gln	gat Asp 600	gcc Ala	atg Met	gaa Glu	acc Thr	cta Leu 605	aga Arg	agg Arg	tct Ser	1824
atg Met	tct Ser 610	act Thr	gaa Glu	ggc Gly	aat Asn	aaa Lys 615	cga Arg	gga Gly	atg Met	atc Ile	cag Gln 620	ctt Leu	att Ile	gtt Val	gca Ala	1872
agg Arg	aga Arg	ata Ile	agc Ser	aag Lys	tgc Cys	aat Asn	gag Glu	ctg Leu	aag Lys	tca Ser	cct Pro	ggg Gly	agc Ser	ccc Pro	cct Pro	1920

19442210400(210400)

625		630		635		640	
gga cct gag ctg ccc att gaa aca gcg ttg gat gat gaa cga aga							1968
Gly Pro Glu Leu Pro 645 Ile Glu Thr Ala Leu 650 Asp Asp Arg Glu Arg 655 Arg							
att tcc cat tcc ctc tac agt ggg att gag ggg ctt gat gaa tcc cca							2016
Ile Ser His Ser 660 Leu Tyr Ser Gly Ile 665 Glu Gly Leu Asp Glu Ser Pro							
agc aga aat gct gcc ctc agt agg ata atg ggt aaa tac cag ctg tcc							2064
Ser Arg Asn Ala 675 Ala Leu Ser Arg 680 Ile Met Gly Lys 685 Tyr Gln Leu Ser							
cct aca gtg aat atg ccc caa gat gac act gtc att ata gaa gat gac							2112
Pro Thr Val Asn Met Pro 695 Asp Asp Thr Val 700 Ile Ile Glu Asp Asp							
agg ttg cca gtg ctt cct cca cat ctc tct gac cag tcc tct tcc agc							2160
Arg Leu Pro Val Leu 710 Pro His Leu Ser 715 Asp Gln Ser Ser Ser 720 Ser							
tcc cat gat gat gtg ggg ttt gtg acg gca gat gct ggt act tgg gcc							2208
Ser His Asp Asp Val 725 Gly Phe Val Thr 730 Ala Asp Ala Gly Thr 735 Trp Ala							
aag gct gca atc agt gat tca gcc gac tgc tct ttg agt cca gat gtt							2256
Lys Ala Ala Ile 740 Ser Asp Ser Ala 745 Asp Cys Ser Leu Ser Pro Asp Val							
gat cca gtt ctt gct ttt caa cga gaa gga ttt gga cgt cag ata gct							2304
Asp Pro Val 755 Leu Ala Phe Gln Arg 760 Glu Gly Phe Gly Arg 765 Gln Ile Ala							
gac gag act aaa ctc aat aca gtg gat gac cag aaa gca ggt tct ccc							2352
Asp Glu Thr Lys Leu Asn Thr 775 Val Asp Asp Gln Lys 780 Ala Gly Ser Pro							
agc aga gat gtg ggt cct tcc ctg ggt ctg aag aag tca agc tcg ttg							2400
Ser Arg Asp Val Gly 790 Ser Leu Gly Leu 795 Lys Lys Ser Ser Ser 800 Leu							
gag agt ctg cag acc gca gtt gcc gag gtg act ttg aat ggg gat att							2448
Glu Ser Leu Gln 805 Ala Val Ala Glu Val 810 Thr Leu Asn Gly Asp 815 Ile							
cct ttc cat cgt cca cgg ccg cgg ata atc aga ggc agg gga tgc aat							2496
Pro Phe His Arg 820 Pro Arg Pro Arg 825 Ile Ile Arg Gly Arg 830 Cys Asn							
gag agc ttc aga gct gcc atc gac aaa tct tat gat aaa ccc gcg gta							2544
Glu Ser Phe Arg 835 Ala Ala Ile Asp 840 Lys Ser Tyr Asp 845 Pro Ala Val							
gat gat gat gat gag ggc atg gag acc ttg gaa gaa gac aca gaa gaa							2592
Asp Asp Asp Asp Glu Gly 855 Glu Thr Leu Glu 860 Glu Asp Thr Glu Glu							
agt tca aga tca ggg aga gag tct gta tcc aca gcc agt gat cag cct							2640
Ser Ser Arg Ser Gly 870 Glu Ser Val Ser 875 Thr Thr 880 Gln Pro 880 Pro							
tcc cac tct ctg gag aga caa atg aat gga aac caa gag aaa ggt gat							2688

19442210400(210400)

Ser	His	Ser	Leu	Glu	Arg	Gln	Met	Asn	Gly	Asn	Gln	Glu	Lys	Gly	Asp	
				885					890					895		
aag	act	gat	aga	aaa	aag	gat	aaa	act	gga	aaa	gaa	aag	aag	aaa	gat	2736
Lys	Thr	Asp	Arg	Lys	Lys	Asp	Lys	Thr	Gly	Lys	Glu	Lys	Lys	Lys	Asp	
				900				905					910			
aga	gat	aag	gag	aag	gat	aaa	atg	aaa	gcc	aag	aag	gga	atg	ctg	aag	2784
Arg	Asp	Lys	Glu	Lys	Asp	Lys	Met	Lys	Ala	Lys	Lys	Lys	Met	Leu	Lys	
				915			920					925				
ggc	ttg	gga	gac	atg	ttc	agg	ttt	ggc	aaa	cat	cga	aaa	gat	gac	aag	2832
Gly	Leu	Gly	Asp	Met	Phe	Arg	Phe	Gly	Lys	His	Arg	Lys	Asp	Asp	Lys	
	930					935					940					
att	gag	aaa	acg	ggg	aaa	ata	aaa	ata	cag	gaa	tcc	ttt	aca	tca	gaa	2880
Ile	Glu	Lys	Thr	Gly	Lys	Ile	Lys	Ile	Gln	Glu	Ser	Phe	Thr	Ser	Glu	
	945				950					955					960	
gag	gag	agg	ata	cga	atg	aag	cag	gag	cag	gag	agg	att	caa	gcc	aaa	2928
Glu	Glu	Arg	Ile	Arg	Met	Lys	Gln	Glu	Gln	Glu	Arg	Ile	Gln	Ala	Lys	
				965					970					975		
act	cga	gaa	ttt	agg	gaa	cga	caa	gct	cga	gag	cgt	gac	tat	gct	gaa	2976
Thr	Arg	Glu	Phe	Arg	Glu	Arg	Gln	Arg	Arg	Glu	Arg	Asp	Asp	Thr	Ala	
				980				985					990			
att	caa	gat	ttt	cat	cgg	aca	ttt	ggc	tgt	gat	gat	gag	tta	atg	tat	3024
Ile	Gln	Asp	Phe	His	Arg	Thr	Phe	Gly	Cys	Asp	Asp	Glu	Leu	Met	Tyr	
				995				1000					1005			
ggg	gga	gtt	tct	tct	tat	gaa	ggt	tcc	atg	gct	ctc	aac	gct	aga	cct	3072
Gly	Gly	Val	Ser	Ser	Tyr	Glu	Gly	Ser	Met	Ala	Leu	Asn	Ala	Arg	Pro	
		1010					1015					1020				
cag	agc	cca	cga	gaa	ggg	cat	atg	atg	gat	gct	ttg	tat	gcc	caa	gtc	3120
Gln	Ser	Pro	Arg	Glu	Gly	His	Met	Met	Asp	Ala	Leu	Tyr	Ala	Gln	Val	
						1030				1035					1040	
aag	aag	ccg	cgg	aat	tcc	aaa	ccc	tca	cct	gta	gac	agt	aac	aga	tca	3168
Lys	Lys	Pro	Arg	Asn	Ser	Lys	Pro	Ser	Pro	Val	Asp	Ser	Asn	Arg	Ser	
						1045			1050					1055		
act	cct	agc	aat	cat	gat	cgg	ata	cag	cgt	ctg	agg	caa	gaa	ttt	cag	3216
Thr	Pro	Ser	Asn	His	Asp	Arg	Ile	Gln	Arg	Leu	Arg	Gln	Glu	Phe	Gln	
									1065					1070		
caa	gca	aag	caa	gat	gaa	gat	gta	gaa	gat	cgt	cgg	cgg	acc	tat	agt	3264
Gln	Ala	Lys	Gln	Asp	Glu	Asp	Glu	Glu	Asp	Arg	Arg	Arg	Thr	Tyr	Ser	
							1080						1085			
ttt	gag	caa	ccc	tgg	ccg	aac	gca	cgg	ccg	gcg	acg	cag	agc	ggg	cga	3312
Phe	Glu	Gln	Pro	Trp	Pro	Asn	Ala	Arg	Pro	Ala	Thr	Gln	Ser	Gly	Arg	
							1095					1100				
cac	tcg	gtg	tcc	gtg	gag	gtg	cag	atg	cag	cgg	cag	cgg	cag	gag	gag	3360
His	Ser	Val	Ser	Val	Glu	Val	Gln	Met	Gln	Arg	Gln	Arg	Gln	Glu	Glu	
							1110			1115					1120	
cgc	gag	agc	tcc	cag	cag	gcc	cag	cgc	cag	tac	agc	tct	ctg	cct	cgg	3408
Arg	Glu	Ser	Ser	Gln	Gln	Ala	Gln	Arg	Gln	Tyr	Ser	Ser	Leu	Pro	Arg	
						1125				1130				1135		

19442210400(210400)

caa agc agg aaa aat gcc agc tcg gtc tcc cag gac tct tgg gag cag	3456
Gln Ser Arg Lys Asn Ala Ser Ser Val Ser Gln Asp Ser Trp Glu Gln	
1140 1145 1150	
aac tac tcc cct ggg gaa ggc ttc cag agt gcc aaa gag aac ccc agg	3504
Asn Tyr Ser Pro Gly Glu Gly Phe Gln Ser Ala Lys Glu Asn Pro Arg	
1155 1160 1165	
tac tcc agc tac caa ggc tcc agg aac ggc tac ctg gga gga cat ggc	3552
Tyr Ser Ser Tyr Gln Gly Ser Arg Asn Gly Tyr Leu Gly Gly His Gly	
1170 1175 1180	
ttc aac gcc agg gtc atg gaa act cag gag ctg cct cgc cag gaa	3600
Phe Asn Ala Arg Val Met Leu Glu Thr Gln Leu Leu Arg Gln Glu	
1185 1190 1195	
cag agg cgg aag gag cag cag atg aag aag cag cct cct tcc gag ggg	3648
Gln Arg Arg Lys Glu Gln Met Lys Lys Gln Pro Pro Ser Glu Gly	
1205 1210 1215	
ccc agc aac tat gac tcg tat aag aaa gtc cag gac ccc agt tac gcc	3696
Pro Ser Asn Tyr Asp Ser Tyr Lys Lys Val Gln Asp Pro Ser Tyr Ala	
1220 1225 1230	
cct ccc aag ggg ccc ttc cgg caa gat gtg ccc ccc tcc cct tct cag	3744
Pro Pro Lys Gly Pro Phe Arg Gln Asp Val Pro Pro Ser Pro Ser Gln	
1235 1240 1245	
gtt gcg agg ctg aac aga ctt cag act cct gag aaa ggg agg ccc ttc	3792
Val Ala Arg Leu Asn Arg Leu Gln Thr Pro Glu Lys Gly Arg Pro Phe	
1250 1255 1260	
tat tcc tga	3801
Tyr Ser *	
1265	

<210> 2
 <211> 1266
 <212> PRT
 <213> Homo sapiens

<400> 2

Met Lys Val Thr Val Cys Phe Gly Arg Thr Arg Val Val Val Pro Cys	
1 5 10 15	
Gly Asp Gly His Met Lys Val Phe Ser Leu Ile Gln Gln Ala Val Thr	
20 25 30	
Arg Tyr Arg Lys Ala Ile Ala Lys Asp Pro Asn Tyr Trp Ile Gln Val	
35 40 45	
His Arg Leu Glu His Gly Asp Gly Ile Leu Asp Leu Asp Asp Ile	
50 55 60	
Leu Cys Asp Val Ala Asp Lys Asp Arg Leu Val Ala Val Phe Asp	
65 70 75 80	
Glu Gln Asp Pro His His Gly Gly Asp Gly Thr Ser Ala Ser Ser Thr	
85 90 95	
Gly Thr Gln Ser Pro Glu Ile Phe Gly Ser Glu Leu Gly Thr Asn Asn	
100 105 110	
Val Ser Ala Phe Gln Pro Tyr Gln Ala Thr Ser Glu Ile Glu Val Thr	
115 120 125	
Pro Ser Val Leu Arg Ala Asn Met Pro Leu His Val Arg Arg Ser Ser	
130 135 140	
Asp Pro Ala Leu Ile Gly Leu Ser Thr Ser Val Ser Asp Ser Asn Phe	
145 150 160	

19442210400(210400)

Ser	Ser	Glu	Glu	Pro	Ser	Arg	Lys	Asn	Pro	Thr	Arg	Trp	Ser	Thr	Thr
Ala	Gly	Phe	Leu	165	Lys	Gln	Asn	Thr	Ala	Gly	Ser	Pro	Lys	Thr	Cys
Arg	Lys	Asp	Glu	180	Asp	Gly	Thr	Glu	185	Asp	Asn	Ser	Arg	Val	Glu
Val	Gly	His	Ala	195	Asp	Thr	Gly	Leu	200	Glu	His	Ile	Pro	Asn	Phe
Asp	Asp	Met	Val	210	Lys	Leu	215	Val	220	Pro	Asn	Asp	Gly	Gly	Pro
Gly	Ile	His	Val	225	Val	Pro	Phe	Ser	Ala	Arg	Gly	Gly	Arg	Thr	Leu
Leu	Leu	Val	Lys	245	Arg	Glu	Lys	Gly	250	Gly	Lys	Ala	Glu	His	Glu
Leu	Phe	Arg	Glu	260	Asn	Asp	Cys	Ile	265	Val	Arg	Ile	Asn	Asp	Asp
Arg	Asn	Arg	Arg	275	Phe	Glu	Gln	Ala	280	Gln	His	Met	Phe	Arg	Gln
Arg	Thr	Pro	Ile	290	Ile	Trp	Phe	His	295	Val	Val	Pro	Ala	Ala	Asn
Gln	Tyr	Glu	Gln	305	Leu	Ser	Gln	Ser	310	Glu	Lys	Asn	Tyr	Tyr	Ser
Arg	Phe	Ser	Pro	325	Asp	Ser	Gln	Tyr	330	Ile	Asp	Asn	Arg	Ser	Val
Ala	Gly	Leu	His	340	Thr	Val	Gln	Arg	345	Ala	Pro	Arg	Leu	Asn	His
Glu	Gln	Ile	Asp	355	Ser	His	Ser	Arg	360	Leu	Pro	His	Ser	Ala	His
Gly	Lys	Pro	Pro	370	Ser	Ala	Pro	Ala	375	Ser	Ala	Pro	Gln	Asn	Val
Thr	Thr	Val	Ser	385	Ser	Gly	Tyr	Asn	390	Thr	Lys	400	Gly	Lys	Arg
Asn	Ile	Gln	Leu	405	Lys	Gly	Thr	Glu	410	Gly	Leu	Gly	Phe	Ser	Ile
Ser	Arg	Asp	Val	420	Thr	Ile	Gly	Gly	425	Ser	Ala	Pro	Ile	Tyr	Val
Ile	Leu	Pro	Arg	435	Gly	Ala	Ala	Ile	440	Gln	Asp	Gly	Arg	Leu	Lys
Asp	Arg	Leu	Ile	450	Glu	Val	455	Asn	460	Gly	Val	Asp	Leu	Val	Gly
Glu	Glu	Val	Val	465	Ser	Leu	Leu	Arg	470	Ser	Thr	Lys	Met	Glu	Gly
Ser	Leu	Leu	Val	485	Phe	Arg	Gln	Glu	490	Asp	Ala	Phe	His	Pro	Arg
Lys	Ala	Glu	Asp	500	Glu	Asp	Ile	Val	505	Leu	Thr	Pro	Asp	Gly	Thr
Phe	Leu	Thr	Phe	515	Glu	Val	Pro	Leu	520	Asn	Asp	Ser	Gly	Ser	Ala
Gly	Val	Ser	Val	530	Lys	Gly	Asn	Arg	535	Ser	Lys	Glu	Asn	His	Ala
Gly	Ile	Phe	Val	545	Lys	Ser	Ile	Ile	550	Asn	Gly	Gly	Ala	Ala	Ser
Gly	Arg	Leu	Arg	565	Val	Asn	Asp	Gln	570	Leu	Ile	Ala	Val	Asn	Gly
Leu	Leu	Gly	Lys	580	Thr	Asn	Gln	Asp	585	Ala	Met	Glu	Thr	Leu	Arg
Met	Ser	Thr	Glu	595	Gly	Asn	Lys	Arg	600	Gly	Met	Ile	Gln	Leu	Ile
Arg	Arg	Ile	Ser	610	Lys	Cys	Asn	Glu	615	Leu	Lys	Ser	Pro	Gly	Ser
Gly	Pro	Glu	Leu	625	Pro	Ile	Glu	Thr	630	Ala	Leu	Asp	Asp	Arg	Glu
Ile	Ser	His	Ser	645	Leu	Tyr	Ser	Gly	650	Ile	Glu	Leu	Asp	Glu	Ser

[illegible]

19442210400(210400)
 Tyr Ser Ser Tyr Gln Gly Ser Arg Asn Gly Tyr Leu Gly Gly His Gly
 1170 1175 1180
 Phe Asn Ala Arg Val Met Leu Glu Thr Gln Glu Leu Leu Arg Gln Glu
 1185 1190 1195 1200
 Gln Arg Arg Lys Glu Gln Met Lys Lys Gln Pro Pro Ser Glu Gly
 1205 1210 1215
 Pro Ser Asn Tyr Asp Ser Tyr Lys Lys Val Gln Asp Pro Ser Tyr Ala
 1220 1225 1230
 Pro Pro Lys Gly Pro Phe Arg Gln Asp Val Pro Pro Ser Pro Ser Gln
 1235 1240 1245
 Val Ala Arg Leu Asn Arg Leu Gln Thr Pro Glu Lys Gly Arg Pro Phe
 1250 1255 1260
 Tyr Ser
 1265

<210> 3
 <211> 9
 <212> PRT
 <213> Homo sapiens

<400> 3
 Pro Leu Thr Asp Glu Arg Met Pro Val
 1 5

<210> 4
 <211> 27
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 6, 9, 18, 24, 27
 <223> n = A,T,C or G

<400> 4
 ttyctnacng aygarcgnat gccngtn

27

<210> 5
 <211> 9
 <212> PRT
 <213> Homo sapiens

<400> 5
 Phe Leu Thr Asp Glu Ala Arg Ser Val
 1 5

<210> 6
 <211> 27
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 6, 9, 18, 21, 24, 27
 <223> n = A,T,C or G

<400> 6
 ttyctnacng aygarcgnmg nwsngtn

27

<210> 7

19442210400(210400)

<211> 9
<212> PRT
<213> Homo sapiens

<400> 7
Phe Leu Asp Asp Glu Ile Met Arg Val
1 5

<210> 8
<211> 27
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 6, 24, 27
<223> n = A,T,C or G

<400> 8
tтыctngayg aygarathat gmgngtn 27

<210> 9
<211> 9
<212> PRT
<213> Homo sapiens

<400> 9
Phe Leu Asp Asp Glu Ile Thr Phe Val
1 5

<210> 10
<211> 27
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 6, 21, 27
<223> n = A,T,C or G

<400> 10
tтыctngayg aygarathac nttygtn 27

<210> 11
<211> 9
<212> PRT
<213> Homo sapiens

<400> 11
Ile Ile Glu Asp Asp Arg Leu Pro Val
1 5

<210> 12
<211> 27
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 18, 21, 24, 27

19442210400(210400)

<223> n = A,T,C or G

<400> 12
athathgarg aygaycgnyt nccngtn

27